

=> file reg

FILE 'REGISTRY' ENTERED AT 17:56:19 ON 08 MAR 2006  
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FILE 'REGISTRY' ENTERED AT 16:59:27 ON 08 MAR 2006

E CELLULOSE/CN

L1 1 SEA CELLULOSE/CN

E STARCH/CN

L2 1 SEA STARCH/CN

FILE 'HCA' ENTERED AT 17:04:05 ON 08 MAR 2006

L3 828873 SEA L1 OR L2 OR CELLULOS? OR CELLULOLY? OR STARCH? OR  
?SACCHARID? OR ?CARBOHYDRAT?

L4 QUE HALIDE# OR BROMIDE# OR CHLORIDE# OR IODIDE# OR  
HYPOHALITE# OR HYPOCHLORITE# OR HYPOBROMITE# OR HYPOIODIT  
E#

FILE 'REGISTRY' ENTERED AT 17:04:24 ON 08 MAR 2006

E PEROXIDASE/CN

L5 1 SEA PEROXIDASE/CN

E LACTOPEROXIDASE/CN

L6 1 SEA LACTOPEROXIDASE/CN

E MYELOPEROXIDASE/CN

L7 1 SEA MYELOPEROXIDASE/CN

E HALOPEROXIDASE/CN

L8 1 SEA HALOPEROXIDASE/CN

L9 2 SEA (L5 OR L6 OR L7 OR L8)

FILE 'HCA' ENTERED AT 17:08:15 ON 08 MAR 2006

L10 91168 SEA L9 OR ?PEROXIDAS?

L11 6285 SEA (NITROXYL# OR NITROSONIUM# OR TEMPO OR PROXYL OR  
DOXYL OR N(W)OXIDE#) AND RADICAL?

FILE 'LREGISTRY' ENTERED AT 17:09:18 ON 08 MAR 2006

E NITROSYL

L12 1 SEA NITROSYLBENZENE/BI

FILE 'HCA' ENTERED AT 17:10:40 ON 08 MAR 2006

L13 4565 SEA (NITROSYL? OR NITROSO?) AND RADICAL?

FILE 'LREGISTRY' ENTERED AT 17:10:51 ON 08 MAR 2006

L14 STR

L15 E NITROXYL  
9 SEA NITROXYL/BI

L16 FILE 'HCA' ENTERED AT 17:14:10 ON 08 MAR 2006  
5833 SEA NITROXIDE# AND RADICAL?

FILE 'REGISTRY' ENTERED AT 17:16:38 ON 08 MAR 2006  
L17 50 SEA SSS SAM L14  
L18 STR L14  
L19 50 SEA SSS SAM L18  
L20 33723 SEA SSS FUL L18  
SAV TEM L20 HUG069/A  
L21 53800 SEA RADICAL?  
L22 152 SEA L20 AND L21  
L23 34 SEA C12H24N3O2  
L24 1 SEA L22 AND L23

FILE 'HCA' ENTERED AT 17:28:55 ON 08 MAR 2006  
L25 6754 SEA L22  
L26 8669 SEA L20 AND RADICAL?  
L27 481 SEA L3 AND L4 AND L10  
L28 1 SEA L27 AND L11  
L29 1 SEA L27 AND L13  
L30 2 SEA L27 AND L16  
L31 5 SEA L27 AND L25  
L32 2 SEA L27 AND L26  
L33 28913 SEA L20  
L34 10 SEA L27 AND L33  
L35 8 SEA (L28 OR L29 OR L30 OR L31 OR L32)  
L36 19 SEA L3 AND L10 AND (L11 OR L13 OR L16 OR L25 OR L26)

FILE 'LCA' ENTERED AT 17:44:23 ON 08 MAR 2006  
L37 5328 SEA ?HALOGEN? OR ?HALID? OR ?FLUORID? OR ?CHLORID? OR  
?BROMID? OR ?IODID? OR ?HYPOHALID? OR ?HYPOFLUORID? OR  
?HYPOCHLORID? OR ?HYPOBROMID? OR ?HYPOIODID?

FILE 'HCA' ENTERED AT 17:46:56 ON 08 MAR 2006  
L38 4 SEA L36 AND L37

FILE 'REGISTRY' ENTERED AT 17:47:30 ON 08 MAR 2006  
L39 1329 SEA A1/PG (L) X/ELS (L) 2/ELC.SUB  
L40 432 SEA HYPOCHLORITE# OR HYPOBROMITE# OR HYPOIODITE#

FILE 'HCA' ENTERED AT 17:53:28 ON 08 MAR 2006  
L41 281662 SEA L39 OR L40  
L42 3 SEA L36 AND L41

FILE 'REGISTRY' ENTERED AT 17:53:53 ON 08 MAR 2006

L43 8635 SEA M/ELS (L) X/ELS (L) 2/ELC.SUB

FILE 'HCA' ENTERED AT 17:54:08 ON 08 MAR 2006

L44 588028 SEA L43  
L45 2 SEA L36 AND L44  
L46 8 SEA L35 OR L38 OR L42 OR L45  
L47 6 SEA L34 AND L46  
L48 8 SEA L46 OR L47  
L49 4 SEA L34 NOT L48

FILE 'REGISTRY' ENTERED AT 17:56:19 ON 08 MAR 2006

=> d 120 que stat

L18 STR

E0

O 4

>

C-X-N-X-C

1 2 3

NODE ATTRIBUTES:

HCOUNT IS E0 AT 4  
NSPEC IS RC AT 1  
NSPEC IS RC AT 3  
CONNECT IS E1 RC AT 4  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE

L20 33723 SEA FILE=REGISTRY SSS FUL L18

100.0% PROCESSED 218591 ITERATIONS

33723 ANSWERS

SEARCH TIME: 00.00.01

=> file hca

FILE 'HCA' ENTERED AT 17:56:45 ON 08 MAR 2006

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=> d 148 1-8 cbib abs hitstr hitind

L48 ANSWER 1 OF 8 HCA COPYRIGHT 2006 ACS on STN

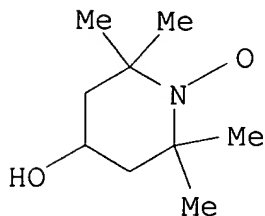
141:381254 Crystalline **polysaccharide** derivatives, their production and their applications. Vignon, Michel; Montanari, Suzelei; Habibi, Youssef (Centre National de la Recherche Scientifique CNRS, Fr.). Fr. Demande FR 2854161 A1 20041029, 68 pp. (French). CODEN: FRXXBL. APPLICATION: FR 2003-5195 20030428.

AB The invention relates to cryst. **polysaccharide** derivs. in which at least part of the CH<sub>2</sub>OH groups are oxidized to CO<sub>2</sub>H groups, whereby the latter are able to be partly or entirely in the form of salts or functionalized. These derivs. are characterized in that they are present in the form of aggregates comprising microcrystals and/or individualized microfibrils, with the lateral sizes of the microcrystals and microfibrils being on the order of 1-30 nm and their length up to .apprx.100 .mu.m, whereby the the microcrystals and microfibrils form aggregates in water. The products may be used as viscosifiers, stabilizers, superabsorbents, or chelators. In an example, cotton linters were oxidized with NaOCl in the presence of TEMPO and NaBr. Other examples deal with **starch** and chitin.

IT 2226-96-2, 4-Hydroxy-TEMPO 2564-83-2, TEMPO  
6599-87-7, 4-Acetoxy-TEMPO 7647-15-6, Sodium  
**bromide**, uses 9003-99-0, **Peroxidase**  
14691-88-4, 4-Amino-TEMPO 14691-89-5,  
4-Acetamido-TEMPO 15178-63-9, 4-Maleimido-TEMPO  
22690-04-6, 4-(Phosphonooxy)-TEMPO 31645-22-4,  
4-(Benzyloxy)-TEMPO  
(in prodn. of microcryst. and microfibrillar oxidized  
**polysaccharide** derivs.)

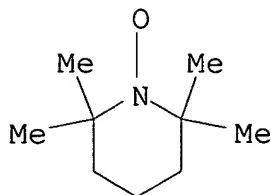
RN 2226-96-2 HCA

CN 1-Piperidinyloxy, 4-hydroxy-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

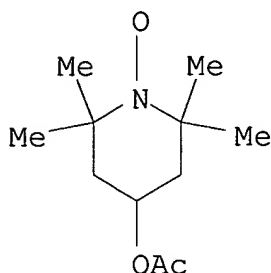


RN 2564-83-2 HCA

CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



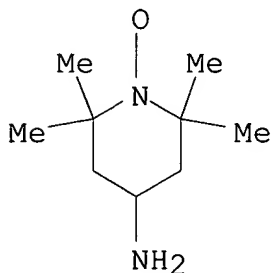
RN 6599-87-7 HCA  
CN 1-Piperidinyloxy, 4-(acetyloxy)-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



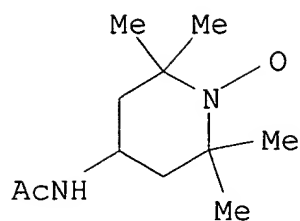
RN 7647-15-6 HCA  
CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br<sup>-</sup> Na

RN 9003-99-0 HCA  
CN Peroxidase (9CI) (CA INDEX NAME)  
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
RN 14691-88-4 HCA  
CN 1-Piperidinyloxy, 4-amino-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

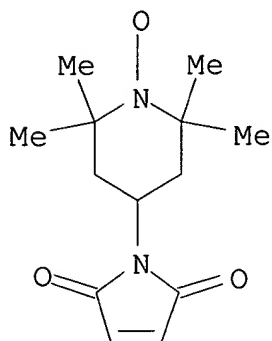


RN 14691-89-5 HCA  
CN 1-Piperidinyloxy, 4-(acetylamino)-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



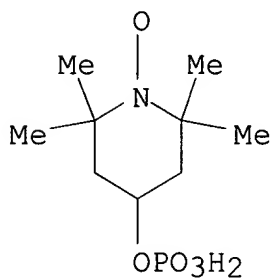
RN 15178-63-9 HCA

CN 1-Piperidinyloxy, 4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



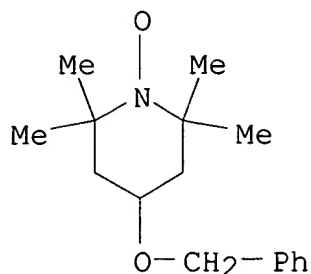
RN 22690-04-6 HCA

CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl-4-(phosphonoxy)- (9CI) (CA INDEX NAME)



RN 31645-22-4 HCA

CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl-4-(phenylmethoxy)- (9CI) (CA INDEX NAME)



IT **7681-52-9, Sodium hypochlorite**  
 (in prodn. of microcryst. and microfibrillar oxidized  
**polysaccharide** derivs.)  
 RN 7681-52-9 HCA  
 CN Hypochlorous acid, sodium salt (8CI, 9CI) (CA INDEX NAME)

Cl-OH

● Na

IT **9004-34-6DP, Cellulose, oxidized**  
**9005-25-8DP, Starch, oxidized**  
 (prodn. of microcryst. and microfibrillar oxidized  
**polysaccharide** derivs.)  
 RN 9004-34-6 HCA  
 CN Cellulose (8CI, 9CI) (CA INDEX NAME)  
 \*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 RN 9005-25-8 HCA  
 CN Starch (8CI, 9CI) (CA INDEX NAME)  
 \*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 IC ICM C08B015-00  
 CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)  
 Section cross-reference(s): 44  
 ST **polysaccharide** oxidn microcryst microfiber product;  
**cellulose starch** chitin oxidn microcryst  
 microfiber product  
 IT Rayon, preparation  
 (oxidized; in prodn. of microcryst. and microfibrillar oxidized  
**polysaccharide** derivs.)  
 IT Linters  
 (prodn. of cryst. oxidized **polysaccharide** derivs. from)  
 IT Microcrystallites  
 Microfibers  
 (prodn. of microcryst. and microfibrillar oxidized

- polysaccharide** derivs.)
- IT Beta vulgaris saccharifera  
(pulp; in prodn. of microcryst. and microfibrillar oxidized  
**polysaccharide** derivs.)
- IT 2226-96-2, 4-Hydroxy-TEMPO 2564-83-2, TEMPO  
6599-87-7, 4-Acetoxy-TEMPO 7647-15-6, Sodium  
**bromide**, uses 9001-62-1, Lipase 9002-10-2, Polyphenol  
oxidase 9003-99-0, **Peroxidase** 14691-88-4  
, 4-Amino-TEMPO 14691-89-5, 4-Acetamido-TEMPO  
15178-63-9, 4-Maleimido-TEMPO 22690-04-6,  
4-(Phosphonooxy)-TEMPO 31645-22-4, 4-(Benzyloxy)-TEMPO  
80498-15-3, Laccase  
(in prodn. of microcryst. and microfibrillar oxidized  
**polysaccharide** derivs.)
- IT 100-46-9DP, Benzylamine, reaction products with oxidized  
**cellulose** 109-85-3DP, 2-Methoxyethylamine, reaction  
products with oxidized **cellulose** 110-60-1DP,  
1,4-Diaminobutane, reaction products with oxidized **cellulose**  
9037-22-3DP, Waxilys, oxidized 25189-55-3DP, Poly(N-  
isopropylacrylamide), reaction products with oxidized  
**cellulose** 111144-84-4DP, reaction products with oxidized  
**cellulose** 783344-73-0DP, reaction products with oxidized  
**cellulose**  
(in prodn. of microcryst. and microfibrillar oxidized  
**polysaccharide** derivs.)
- IT 67-56-1, Methanol, uses 1892-57-5, EDAC  
(in prodn. of microcryst. and microfibrillar oxidized  
**polysaccharide** derivs.)
- IT 7681-52-9, Sodium **hypochlorite** 10028-15-6,  
Ozone, reactions  
(in prodn. of microcryst. and microfibrillar oxidized  
**polysaccharide** derivs.)
- IT 1398-61-4DP, Chitin, oxidized 9000-07-1DP, Carrageenan, oxidized  
9004-34-6DP, **Cellulose**, oxidized  
9005-25-8DP, **Starch**, oxidized 9005-80-5DP,  
Inulin, oxidized 9005-82-7DP, Amylose, oxidized 9012-36-6DP,  
Agarose, oxidized 9012-72-0DP, Glucan, oxidized 9014-63-5DP,  
Xylan, oxidized 9036-88-8DP, Mannan, oxidized 31799-84-5DP,  
Nigeran, oxidized  
(prodn. of microcryst. and microfibrillar oxidized  
**polysaccharide** derivs.)

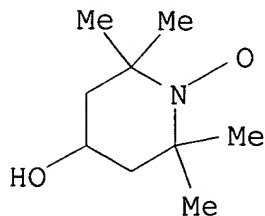
L48 ANSWER 2 OF 8 HCA COPYRIGHT 2006 ACS on STN

139:391295 Do stable **nitroxide radicals** catalyze or  
inhibit the degradation of hyaluronic acid?. Lurie, Ziva; Offer,  
Tal; Russo, Angelo; Samuni, Amram; Nitzan, Dorrit (Department of  
Molecular Biology, Hebrew University-Hadassah Medical School,  
Jerusalem, Israel). Free Radical Biology & Medicine, 35(2), 169-178



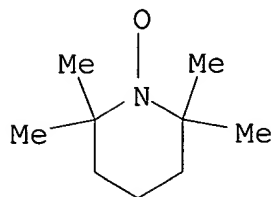
(English) 2003. CODEN: FRBMEH. ISSN: 0891-5849. Publisher: Elsevier Science Inc..

- AB Reactive oxygen-derived species and particularly OH **radicals** can degrade hyaluronic acid (HA), resulting in a loss of viscosity and a subsequent decrease in its effectiveness as a joint-lubricating agent. The prodn. of OH in the vicinity of HA can be catalyzed by bound redox-active metals, which participate in the Haber-Weiss reaction. Damage to HA can also occur as a result of **hypochlorite** formed by **myeloperoxidase** (MPO). The protective reagents commonly used to inhibit oxidative stress-induced degrdn. of HA include antioxidative enzymes, such as SOD and catalase, chelators that coordinate metal ions rendering them redox-inactive, and scavengers of **radicals**, such as OH, as well as nonradical reactive species. In recent years, stable cyclic **nitroxides** have also been widely used as effective antioxidants. In many cases, **nitroxide** antioxidants operate catalytically and mediate their protective effect through an exchange between their oxidized and reduced forms. It was anticipated, therefore, that **nitroxides** would protect HA from oxidative degrdn. as well. On the other hand, **nitroxides** serve as catalysts in many oxidn. reactions of alcs., sugars and **polysaccharides**, including hyalouronan. Such opposite effects of **nitroxides** on oxidative degrdn. are particularly intriguing and the aim of the present study was to examine their effect on HA when subjected to diverse forms of oxidative stress. The results indicate that **nitroxides** protect HA from OH **radicals** generated enzymically or radiolytically. The protective effect is attributable neither to the scavenging of OH nor to the oxidn. of reduced metal, but to the reaction of **nitroxides** with secondary **carbohydrate radicals**-most likely peroxy **radicals**.
- IT **2226-96-2**, 4-Hydroxy-2,2,6,6-tetramethyl piperidine-1-oxyl  
**2564-83-2**, 2,2,6,6-Tetra-methyl piperidine-1-oxyl  
**14691-88-4**, 4-Amino-2,2,6,6-tetra-methyl piperidine-1-oxyl  
(stable **nitroxide radicals** effect on degrdn. of hyaluronic acid)
- RN 2226-96-2 HCA
- CN 1-Piperidinyloxy, 4-hydroxy-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



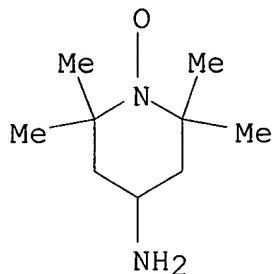
RN 2564-83-2 HCA

CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



RN 14691-88-4 HCA

CN 1-Piperidinyloxy, 4-amino-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



CC 1-12 (Pharmacology)

Section cross-reference(s): 8, 14

ST **nitroxide** antioxidant superoxide SOD mimetic ionizing  
radiation hyaluronate viscosity; antiinflammatory rheumatoid  
arthritis **nitroxide** hyaluronate oxidative stress free  
**radical**

IT Anti-inflammatory agents

Antioxidants

Antirheumatic agents

Gamma ray

Rheumatoid arthritis

Viscosity

(stable **nitroxide radicals** effect on degrdn.  
of hyaluronic acid)

IT **Radicals**, biological studies

(stable **nitroxide radicals** effect on degrdn.  
of hyaluronic acid)

IT **Nitroxides**

(stable **nitroxide radicals** effect on degrdn.  
of hyaluronic acid)

IT 9054-89-1

(copper-zinc-contg.; stable **nitroxide radicals**)

- effect on degrdn. of hyaluronic acid)
- IT 3352-57-6, Hydroxyl, biological studies 7722-84-1, Hydrogen peroxide, biological studies 11062-77-4, Superoxide 14337-01-0, biological studies  
(stable **nitroxide radicals** effect on degrdn. of hyaluronic acid)
- IT 9004-61-9, Hyaluronic acid  
(stable **nitroxide radicals** effect on degrdn. of hyaluronic acid)
- IT 68-94-0, Hypoxanthine 69-65-8, Mannitol 70-51-9, Desferrioxamine  
**2226-96-2**, 4-Hydroxy-2,2,6,6-tetramethyl piperidine-1-oxyl  
**2564-83-2**, 2,2,6,6-Tetra-methyl piperidine-1-oxyl  
9001-05-2, Catalase 9002-17-9 **14691-88-4**,  
4-Amino-2,2,6,6-tetra-methyl piperidine-1-oxyl  
(stable **nitroxide radicals** effect on degrdn. of hyaluronic acid)

L48 ANSWER 3 OF 8 HCA COPYRIGHT 2006 ACS on STN

138:155270 Process for the selective modification of

**carbohydrates** by **peroxidase** catalyzed oxidation.

Cui, Xiaoyuan; Cimecioglu, A. Levent; Shi, Yong-Cheng (USA). U.S. Pat. Appl. Publ. US 2003029588 A1 20030213, 7 pp. (English).

CODEN: USXXCO. APPLICATION: US 2001-851069 20010508.

- AB The present invention relates to an environmentally friendly process for the selective oxidn. of **carbohydrates**. The process comprises the addn. of a hydroperoxide, including hydrogen peroxide, to a **carbohydrate** having primary alc. groups, particularly including **polysaccharides**, wherein said **carbohydrate** is contact with a **nitroxyl radical** mediator and the process is catalyzed by a **peroxidase** enzyme in the presence of **halide** ions. Thus, 50 g Amioca **starch** was added to 200 mL water in which 0.5 g 4-acetamido-**TEMPO**, 0.5 g NaBr and 20 mg **lactoperoxidase** (4.times.600 units, L-8257) were dissolved. The mixt. was incubated at room temp. at an initial pH of 5.3, and 0.5% H<sub>2</sub>O<sub>2</sub> was slowly added (30 .mu.L/min). The pH of the reaction was initially increased from 5.3 to 6.5 and maintained at 6.5 by the slow addn. of NaOH (0.1 N). After 20 h, 0.56 mL of 0.1 N NaOH was consumed. The **starch** slurry was then filtered and **starch** cake was reslurried in water 4 times (200 mL each) until no detectable H<sub>2</sub>O<sub>2</sub> remained in the filtrate, and then air-dried. The oxidized Amioca **starch** showed an aldehyde content 0.34%.

- IT **7647-15-6**, Sodium **bromide**, reactions  
(**halide** ion source; process for selective modification of **carbohydrates** by **peroxidase** catalyzed oxidn. in the presence of **nitroxyl radical**)

RN 7647-15-6 HCA

CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br—Na

IT **9003-99-0, Lactoperoxidase 14691-89-5,**  
**4-Acetamido-TEMPO**  
 (process for selective modification of **carbohydrates** by  
**peroxidase** catalyzed oxidn. in the presence of  
**nitroxyl radical**)

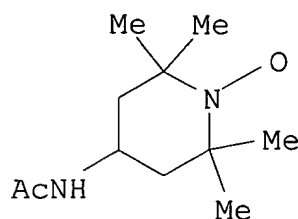
RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 14691-89-5 HCA

CN 1-Piperidinyloxy, 4-(acetylamino)-2,2,6,6-tetramethyl- (9CI) (CA  
 INDEX NAME)



IC ICM D21C009-00

ICS D21C003-20; D06M023-00; D06M013-322

INCL 162072000; 162009000; 162157600; 162109000; 008120000; 008181000;  
 008116100

CC 44-6 (Industrial Carbohydrates)

Section cross-reference(s): 7, 33, 43

ST **lactoperoxidase nitroxyl radical** oxidn

**polysaccharide carbohydrate** aldehyde manuf

IT Enzymes, uses

(**peroxidases**; process for selective modification of  
**carbohydrates** by **peroxidase** catalyzed oxidn. in  
 the presence of **nitroxyl radical**)

IT **Cellulose** pulp

(process for selective modification of **carbohydrates** by  
**peroxidase** catalyzed oxidn. in the presence of  
**nitroxyl radical**)

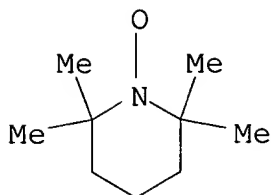
IT **7647-15-6, Sodium bromide**, reactions

(**halide** ion source; process for selective modification  
 of **carbohydrates** by **peroxidase** catalyzed  
 oxidn. in the presence of **nitroxyl radical**)

IT 7722-84-1, Hydrogen peroxide, reactions

(oxidant; process for selective modification of

- carbohydrates** by **peroxidase** catalyzed oxidn. in the presence of **nitroxyl radical**)
- IT 3149-68-6DP, Methyl glucoside, oxidized product 9037-22-3DP, Amioca, oxidized products  
(process for selective modification of **carbohydrates** by **peroxidase** catalyzed oxidn. in the presence of **nitroxyl radical**)
- IT 9003-99-0, **Lactoperoxidase** 9031-28-1, Thyroid **peroxidase** 14691-89-5, 4-Acetamido-**TEMPO**  
(process for selective modification of **carbohydrates** by **peroxidase** catalyzed oxidn. in the presence of **nitroxyl radical**)
- IT 3149-68-6, Methyl glucoside 9037-22-3, Amioca  
(process for selective modification of **carbohydrates** by **peroxidase** catalyzed oxidn. in the presence of **nitroxyl radical**)
- L48 ANSWER 4 OF 8 HCA COPYRIGHT 2006 ACS on STN
- 138:124179 Extraction of **polysaccharides** from vegetable and microbial material using oxidizing agents. Van Der Wilden, Wim; Haaksman, Ingrid Karin; Ekhardt, Peter Frank; Jetten, Jan Matthijs (Nederlandse Organisatie Voor Toegepast-Natuurwetenschappelijk Onderzoek Tno, Neth.). PCT Int. Appl. WO 2003008458 A1 20030130, 15 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-NL482 20020717. PRIORITY: NL 2001-1018568 20010717.
- AB Useful **polysaccharides**, such as .beta.-1,3-glucans, from a biol. raw material can be solubilized and/or isolated by treating the raw material with an oxidizing agent that leads to oxidn. of primary hydroxyl groups in the glucan. The oxidizing agent is preferably a catalytic amt. of a nitroxyl compd. in the presence of a re-oxidizing agent such as **hypochlorite** or an oxidative enzyme with oxygen or hydrogen peroxide. The **polysaccharide** retains its useful properties during this treatment and is, moreover, more readily available. If desired, protein material from the raw material can also be utilized.
- IT 2564-83-2, **TEMPO**  
(extn. of **polysaccharides** from vegetable and microbial material using oxidizing agents)
- RN 2564-83-2 HCA
- CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT **9003-99-0, Peroxidase**  
 (oxidizing agent; extn. of **polysaccharides** from  
 vegetable and microbial material using oxidizing agents)

RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IC C08B037-00; C07H003-06

CC 44-5 (Industrial Carbohydrates)

ST **polysaccharide** extn oxidizing agent

IT Binders  
 Emulsifying agents  
 Oxidation  
 Oxidizing agents  
 Wetting agents  
 (extn. of **polysaccharides** from vegetable and microbial  
 material using oxidizing agents)

IT Yeast  
 (flakes; extn. of **polysaccharides** from vegetable and  
 microbial material using oxidizing agents)

IT **Polysaccharides**, preparation  
 (oxidized; extn. of **polysaccharides** from vegetable and  
 microbial material using oxidizing agents)

IT Beta vulgaris saccharifera  
 (pulp; extn. of **polysaccharides** from vegetable and  
 microbial material using oxidizing agents)

IT Cereal (grain)  
 (residues; extn. of **polysaccharides** from vegetable and  
 microbial material using oxidizing agents)

IT **2564-83-2, TEMPO** 7790-92-3, Hypochlorous acid  
 (extn. of **polysaccharides** from vegetable and microbial  
 material using oxidizing agents)

IT 9002-10-2, Polyphenol oxidase **9003-99-0**,  
**Peroxidase** 80498-15-3, Laccase  
 (oxidizing agent; extn. of **polysaccharides** from  
 vegetable and microbial material using oxidizing agents)

L48 ANSWER 5 OF 8 HCA COPYRIGHT 2006 ACS on STN

137:105054 Nitrosation and Nitration of 2-Amino-3-methylimidazo[4,5-f  
 ]quinoline by Reactive Nitrogen Oxygen Species. Lakshmi, Vijaya M.;

Hsu, Fong Fu; Zenser, Terry V. (Division of Geriatric Medicine, VA Medical Center, St. Louis, MO, 63125, USA). Chemical Research in Toxicology, 15(8), 1059-1068 (English) 2002. CODEN: CRTOEC. ISSN: 0893-228X. Publisher: American Chemical Society.

AB Both cooked red meat intake and chronic inflammation/infection are thought to play a role in the etiol. of colon cancer. The heterocyclic amine 2-amino-3-methylimidazo[4,5-f]quinoline (IQ) is formed during cooking of red meat and may be involved in initiation of colon cancer. Reactive nitrogen oxygen species (RNOS), components of the inflammatory response, contribute to the deleterious effects attributed to inflammation on normal tissues. This study assessed the possible chem. transformation of IQ by RNOS. RNOS were generated by various conditions to react with C-IQ, and samples were evaluated by HPLC. **Myeloperoxidase** (MPO)-catalyzed reaction was dependent upon both H<sub>2</sub>O<sub>2</sub> and NO<sub>2</sub><sup>-</sup>. This reaction produced an azo-IQ dimer and IQ dimer along with two nitrated IQ products identified by ESI/MS. 2-Nitro-IQ was not detected. Product formation was inhibited by 2 mM cyanide. Redn. in nitrated products obsd. with 100 mM **chloride** was not altered with 0.5 mM taurine. Nitrated products were also produced by other conditions, ONOO<sup>-</sup> and NO<sub>2</sub><sup>-</sup> + HOCl, which generate nitrogen dioxide **radical**. In contrast, conditions which generate N<sub>2</sub>O<sub>3</sub>, such as diethylamine NONOate, produced only small amts. of nitrated products with the major product identified by MS and NMR as N-**nitroso**-IQ. MPO activation of IQ to bind DNA was dependent upon both H<sub>2</sub>O<sub>2</sub> and NO<sub>2</sub><sup>-</sup>. RNOS generated by ONOO<sup>-</sup> and DEA NONOate also activated IQ DNA binding. The nitrated IQ products were not activated by MPO to bind DNA. In contrast, N-**nitroso**-IQ was activated to bind DNA by MPO .+-. NO<sub>2</sub><sup>-</sup>. HOCl activated N-**nitroso**-IQ, but not IQ. RAW cells produced N-**nitroso**-IQ and increased amts. of NO<sub>2</sub><sup>-</sup>/NO<sub>3</sub><sup>-</sup>, when incubated with 0.1 mM IQ and stimulated with **lipopolysaccharide** and interferon gamma. Results demonstrate chem. transformation and activation of IQ by RNOS and activation of its N-**nitroso** product by biol. oxidants, events which may contribute to initiation of colon cancer.

IT 9003-99-0, **Myeloperoxidase**

(nitrosation and nitration of IQ by reactive nitrogen oxygen species)

RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CC 4-6 (Toxicology)

Section cross-reference(s): 17

IT 9003-99-0, **Myeloperoxidase** 76180-96-6,

2-Amino-3-methylimidazo[4,5-f]quinoline 146724-94-9, Diethylamine NONOate

(nitrosation and nitration of IQ by reactive nitrogen oxygen

species)

L48 ANSWER 6 OF 8 HCA COPYRIGHT 2006 ACS on STN

133:209532 Oxidized **cellulose**-containing fibrous materials, preparation thereof and products therefrom. Jaschinski, Thomas; Gunnars, Susanna; Besemer, Arie Cornelis; Bragd, Petter; Jetten, Jan Matthijs; Van den Dool, Ronald; Van Hartingsveldt, Willem (Sca Hygiene Products G.m.b.H., Germany; Sca Hygiene Products Zeist B.V.). PCT Int. Appl. WO 2000050462 A1 20000831, 75 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-EP1538 20000224. PRIORITY: EP 1999-200537 19990224; DE 1999-19953590 19991108.

AB A **cellulose**-contg. fibrous material is prepd. by oxidizing hydroxy groups at the C(6) of glucose units of **cellulose** into aldehyde and/or carboxy groups, and used to prep. paper or nonwoven products, esp. tissue products. The paper or nonwoven products display excellent strength properties. Thus, bleached hardwood sulfite pulp was treated for 60 min under acidic conditions with 4-hydroxy-TEMPO (1.00 g/50 g dry fibrous material) using 5% of 13% NaOCl as a primary oxidizing agent, and used to prep. test sheets (basis wt. 80 g/m<sup>2</sup>) having wt. 2.56 g, breaking strength 23.94 (dry) and 4.687 N/15 mm (wet), tear length 1980.1 (dry) and 387.7 m (wet), and rel. wet strength 19.6%, compared with 3.04, 18.48, 0.151, 1285.7, 10.5, and 0.8, resp., for a nonoxidized pulp.

IT **9004-34-6DP, Cellulose**, oxidized, preparation (contg. aldehyde and/or carboxyl groups; oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)

RN 9004-34-6 HCA

CN Cellulose (8CI, 9CI) (CA INDEX NAME)

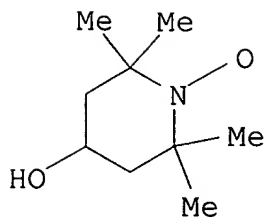
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT **2226-96-2, 4-Hydroxy-TEMPO 2564-83-2, TEMPO 9003-99-0, Peroxidase 14691-88-4, 4-Amino-TEMPO 14691-89-5, 4-Acetamido-TEMPO** (oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)

RN 2226-96-2 HCA

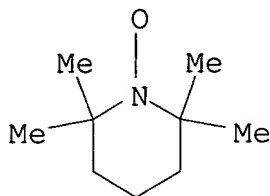
CN 1-Piperidinyloxy, 4-hydroxy-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)





RN 2564-83-2 HCA

CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



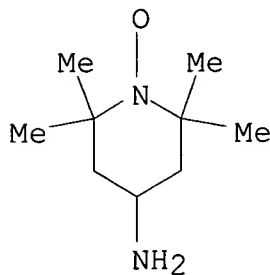
RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

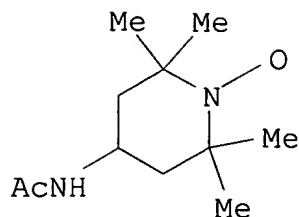
RN 14691-88-4 HCA

CN 1-Piperidinyloxy, 4-amino-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



RN 14691-89-5 HCA

CN 1-Piperidinyloxy, 4-(acetylamino)-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT **7681-52-9, Sodium hypochlorite**  
 (oxidized **cellulose**-contg. fibrous materials, prepn.  
 thereof and products therefrom)  
 RN 7681-52-9 HCA  
 CN Hypochlorous acid, sodium salt (8CI, 9CI) (CA INDEX NAME)

Cl-OH

● Na

IC ICM C08B015-02  
 ICS C08B015-04; D21H011-20  
 CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)  
 ST **cellulose** oxidn aldehydocellulose carboxycellulose paper  
 strength; sodium **hypochlorite** TEMPO oxidn  
**cellulose**; piperidinyloxy sodium **hypochlorite**  
 oxidn **cellulose**  
 IT Household furnishings  
 (bedding; oxidized **cellulose**-contg. fibrous materials,  
 prepn. thereof and products therefrom)  
 IT **Cellulose** pulp  
 (kraft; oxidized **cellulose**-contg. fibrous materials,  
 prepn. thereof and products therefrom)  
 IT Oxidizing agents  
 (metal-contg.; oxidized **cellulose**-contg. fibrous  
 materials, prepn. thereof and products therefrom)  
 IT Clothing  
 Nonwoven fabrics  
 (oxidized **cellulose**-contg. fibrous materials, prepn.  
 thereof and products therefrom)  
 IT **Hypohalites**  
 Peroxy acids  
 (oxidized **cellulose**-contg. fibrous materials, prepn.  
 thereof and products therefrom)  
 IT **Cellulose** pulp

- (sulfite; oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)
- IT Paper  
(tissue, facial; oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)
- IT Paper  
(tissue; oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)
- IT Paper  
(towels; oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)
- IT Medical goods  
(wipes; oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)
- IT Household furnishings  
(wiping cloths; oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)
- IT **9004-34-6DP, Cellulose**, oxidized, preparation  
(contg. aldehyde and/or carboxyl groups; oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)
- IT 39301-50-3P, 6-Aldehydocellulose  
(oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)
- IT **2226-96-2**, 4-Hydroxy-TEMPO **2564-83-2**, TEMPO  
**9003-99-0**, Peroxidase **14691-88-4**,  
4-Amino-TEMPO **14691-89-5**, 4-Acetamido-TEMPO  
(oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)
- IT **7681-52-9**, Sodium hypochlorite 10028-15-6,  
Ozone, reactions  
(oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)

L48 ANSWER 7 OF 8 HCA COPYRIGHT 2006 ACS on STN

130:326478 Method for modification of **cellulose**. Viikari, Liisa; Kruus, Kristiina; Buchert, Johanna (Valtion Teknillinen Tutkimuskeskus, Finland). PCT Int. Appl. WO 9923117 A1 19990514, 16 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-FI861 19981104. PRIORITY: FI 1997-4139 19971104.

AB The method comprises bringing a **cellulose**-contg. material

(pine kraft pulp) into contact with a reactant (e.g., 2,2,6,6-tetramethylpiperidine-1-oxyl) producing an oxoammonium ion in the presence of an oxidizing agent (e.g., laccase). The invention provides selective oxidn., which gives rise to the formation of carboxylic and carbonyl groups at desired ratios in the **cellulose**. By using laccase it is possible to avoid the environmentally harmful **halide**-contg. materials commonly used as oxidants.

IT **9003-99-0, Peroxidase**

(method for modification of **cellulose**)

RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

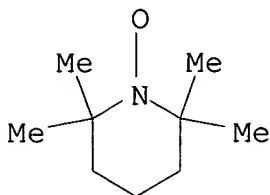
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT **2564-83-2, TEMPO**

(method for modification of **cellulose**)

RN 2564-83-2 HCA

CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM C08B015-04

ICS C12S003-00; D21C009-10

CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)

IT **Cellulose** pulp

(kraft; method for modification of **cellulose**)

IT Oxidizing agents

(method for modification of **cellulose**)

IT **Cellulose** pulp

(oxidized; method for modification of **cellulose**)

IT Enzymes, uses

(oxidizing, oxidizing agents; method for modification of **cellulose**)

IT **9003-99-0, Peroxidase** 80498-15-3, Laccase

(method for modification of **cellulose**)

IT **2564-83-2, TEMPO** 7722-84-1, Hydrogen peroxide, uses

(method for modification of **cellulose**)

L48 ANSWER 8 OF 8 HCA COPYRIGHT 2006 ACS on STN

119:173983 Oxidation of desferrioxamine to **nitroxide** free

**radical** by activated human neutrophils. Soriani, Marco;

Mazucca, Silvia; Quaresima, Valentina; Minetti, Maurizio (Lab. Biol. Cell., Ist. Super. Sanita, Rome, 00161, Italy). Free Radical

Biology & Medicine, 14(6), 589-99 (English) 1993. CODEN: FRBMEH.  
ISSN: 0891-5849.

AB Human neutrophils activated by PMA were found to induce the formation of a **nitroxide radical** from DFO. The presence of SOD was necessary to permit the formation of the DFO **radical**. The inactive phorbol ester did not induce DFO **radical**, and DL-sphinganine suppressed the **radical** produced by the active phorbol ester. Other cell stimuli (Zymocel and the chemotactic peptide) also induced the formation of the DFO **radical**, although **radical** concn. was very much lower than with PMA. Participation of .bul.NO, .bul.OH or 1O<sub>2</sub> was ruled out by the inability of NG-methyl-L-arginine, NG-nitro-L-arginine, DMSO, mannitol, histidine, and methionine to inhibit the formation of DFO **radical** produced by PMA-activated cells. Furthermore, PMA-activated cells did not produce detectable levels of NO<sub>2</sub><sup>-</sup>, a stable oxidn. product of .bul.NO, and D<sub>2</sub>O, which enhances the lifetime of singlet oxygen, did not modify the intensity or the lifetime of DFO **radical**. The involvement of cell MPO was suggested by the inhibition of the DFO **radical** obsd. after treatment with catalase or with antihuman MPO antibodies. Also, HOCl was found to induce the DFO **radical** in cell-free reactions, but this data indicate that the reaction leading to DFO **radical** formation by neutrophils involves the redn. of MPO compd. II back to the active enzyme (ferric-MPO). Anti-inflammatory drugs strongly increased the DFO **radical** produced by activated neutrophils. On the contrary, none of these drugs was able to increase the DFO **radical** produced by HOCl. Histidine and methionine that inhibited the DFO **radical** intensity in cell-free reactions, were shown to act directly on HOCl. Expts. with MPO-H<sub>2</sub>O<sub>2</sub> in SOD- and Cl<sup>-</sup>-free conditions showed the formation of DFO **radical** and confirmed the hypothesis of the involvement of compd. II. The conversion of compd. II to ferric MPO by DFO optimized the enzymic activity of neutrophils, and in the presence of monochlorodimedon (compd. II promoting agent) the authors measured an increased HOCl prodn. When DFO was modified by conjugation with hydroxyethyl **starch**, it lost the ability to produce the **radical** either by neutrophils or by MPO-H<sub>2</sub>O<sub>2</sub> and did not increase HOCl prodn. The inability of these DFO derivs. to produce potentially toxic species might explain their reported lower toxicity in vivo.

IT 9003-99-0P, **Myeloperoxidase**

(role in formation of **nitroxide free radical**,  
in desferrioxamine oxidn., by human neutrophils)

RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CC 1-10 (Pharmacology)

ST desferrioxamine oxidn **nitroxide free radical**  
neutrophil

IT Antioxidants  
(desferrioxamine as, **nitroxide free radical**  
formation by oxidn. of, in neutrophils)

IT Neutrophil  
(desferrioxamine oxidn. by, **nitroxide free radical** formation in, antioxidant activity in relation to)

IT **Hypochlorites**  
(desferrioxamine oxidn. to **nitroxide radical**  
by, in human neutrophils, toxicity in relation to)

IT Chelating agents  
(desferrioxamine, **nitroxide radical** formation  
by oxidn. of, in human neutrophils)

IT Reactive oxygen species  
(role in formation of **nitroxide free radical**,  
in desferrioxamine oxidn., by human neutrophils)

IT Inflammation inhibitors  
(stimulation of **nitroxide radical** formation  
in desferrioxamine oxidn. by, in human neutrophils)

IT 123145-71-1, Desferrioxamine **nitroxide radical**  
(formation of, by desferrioxamine oxidn., by human neutrophils,  
antioxidant activity in relation to)

IT 70-51-9, Desferrioxamine  
(oxidn. of, **nitroxide radical** formation in,  
by human neutrophils, antioxidant activity in relation to)

IT **9003-99-0P, Myeloperoxidase**  
(role in formation of **nitroxide free radical**,  
in desferrioxamine oxidn., by human neutrophils)

=> d 149 1-4 cbib abs hitstr hitind

L49 ANSWER 1 OF 4 HCA COPYRIGHT 2006 ACS on STN

142:444358 Fluorinated resorufin compounds and their application.  
Batchelor, Robert; Ge, Yue; Gee, Kyle; Johnson, Iain; Leung,  
Wai-Yee; Liu, Jixiang; Patch, Brian; Smalley, Peter; Steinberg,  
Thomas (USA). U.S. Pat. Appl. Publ. US 2005096315 A1 20050505, 62  
pp. (English). CODEN: USXXCO. APPLICATION: US 2004-980139  
20041101. PRIORITY: US 2003-2003/PV516244 20031031.

AB The invention provides novel fluorinated resorufin compds. that are  
of use in a variety of assay formats. Also provided are methods of  
using the compds. and kits that include a compd. of the invention  
and instructions detailing the use of the compd. in one or more  
assay formats. 2,8-Difluoro-10-acetyl-3,7-dihydroxyphenoxazine (I)  
was prepd. from 4-fluororesorcinol and isoamyl nitrate in four  
steps. I was used in enzyme assays for cyclooxygenase 2, Hb, and

glycerol, and in an ELISA for C-reactive protein.

IT **9004-34-6, Cellulose**, biological studies

**9004-34-6D, Cellulose**, diazo derivs.

**9005-25-8, Starch**, biological studies

(as solid support linked to fluorinated resorufin compds.;

fluorinated resorufin compds. and their use in assays)

RN 9004-34-6 HCA

CN Cellulose (8CI, 9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 9004-34-6 HCA

CN Cellulose (8CI, 9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 9005-25-8 HCA

CN Starch (8CI, 9CI) (CA INDEX NAME)

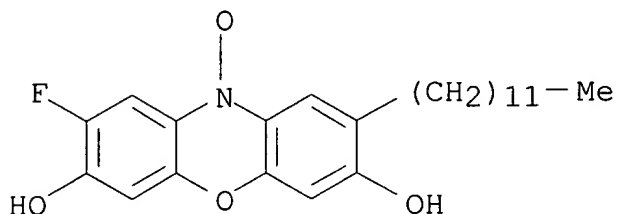
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT **851128-88-6P**

(fluorinated resorufin compds. and their use in assays)

RN 851128-88-6 HCA

CN 10H-Phenoxazin-10-yloxy, 2-dodecyl-8-fluoro-3,7-dihydroxy- (9CI)  
(CA INDEX NAME)



IT **9003-99-0, Peroxidase**

(fluorogenic compd. reaction with peroxide in presence of;  
fluorinated resorufin compds. and their use in assays)

RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT **9003-99-0D, Peroxidase**, conjugates with carrier

(fluorogenic compd. reaction with peroxide in presence of;  
fluorinated resorufin compds. and their use in assays)

RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

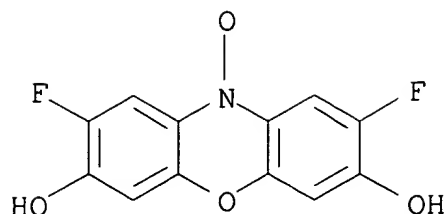
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT **851128-96-6P**

(use in detg. cytotoxicity of test compds.; fluorinated resorufin  
compds. and their use in assays)

RN 851128-96-6 HCA

CN 10H-Phenoxazin-10-yloxy, 2,8-difluoro-3,7-dihydroxy- (9CI) (CA  
INDEX NAME)



- IC ICM A61K031-5415  
ICS A61K031-538; A61K031-498
- INCL 514224800; 514229800; 514250000; 544046000; 544102000; 544347000
- CC 9-5 (Biochemical Methods)  
Section cross-reference(s): 7, 15, 28, 41
- IT **Lipopolysaccharides**  
(Escherichia coli, COX-2 activity induced by, detection of; fluorinated resorufin compds. and their use in assays)
- IT Antibodies and Immunoglobulins  
(IgA, antibody to, conjugates with **peroxidase**; fluorinated resorufin compds. and their use in assays)
- IT Antibodies and Immunoglobulins  
(IgE, antibody to, conjugates with **peroxidase**; fluorinated resorufin compds. and their use in assays)
- IT Antibodies and Immunoglobulins  
(IgG, antibody to, conjugates with **peroxidase**; fluorinated resorufin compds. and their use in assays)
- IT Agglutinins and Lectins  
Amino acids, biological studies  
Antibodies and Immunoglobulins  
Avidins  
Growth factors, animal  
Haptens  
Hormones, animal, biological studies  
Lipids, biological studies  
**Lipopolysaccharides**  
Nucleic acids  
Nucleosides, biological studies  
Nucleotides, biological studies  
Oligonucleotides  
Peptides, biological studies  
Polymers, biological studies  
**Polysaccharides**, biological studies  
Proteins  
(as carrier mol. linked to fluorinated resorufin compds.; fluorinated resorufin compds. and their use in assays)
- IT Antibodies and Immunoglobulins  
(conjugates, with horseradish **peroxidase**; fluorinated resorufin compds. and their use in assays)
- IT Alkyl **halides**



**Aryl halides**

(fluorinated resorufin compds. contg. reactive; fluorinated resorufin compds. and their use in assays)

IT **Functional groups**

(silyl, **halides**, fluorinated resorufin compds. contg. reactive; fluorinated resorufin compds. and their use in assays)

IT **Functional groups**

(sulfonyl group, **halides**, fluorinated resorufin compds. contg. reactive; fluorinated resorufin compds. and their use in assays)

IT 9002-18-0, Agar 9002-86-2, Polyvinyl **chloride**

9002-88-4, Polyethylene 9003-01-4 9003-05-8, Poly(acrylamide)

9003-07-0, Polypropylene 9003-53-6, Polystyrene **9004-34-6**

, **Cellulose**, biological studies **9004-34-6D**,

**Cellulose**, diazo derivs. 9004-70-0, Nitrocellulose

**9005-25-8, Starch**, biological studies 9005-49-6,

Heparin, biological studies 9005-79-2, Glycogen, biological

studies 9005-80-5, Inulin 9012-36-6, Sepharose 9036-88-8,

Mannan 9037-22-3, Amylopectin 25702-74-3, FICOLL

(as solid support linked to fluorinated resorufin compds.; fluorinated resorufin compds. and their use in assays)

## IT 56-65-5, 5'-ATP, analysis 506-32-1, Arachidonic acid 7647-14-5,

Sodium **chloride**, analysis 16009-13-5, Hemin

(fluorinated resorufin compds. and their use in assays)

## IT 851128-75-1P 851128-78-4P 851128-81-9P 851128-84-2P

851128-86-4P **851128-88-6P** 851128-94-4P

(fluorinated resorufin compds. and their use in assays)

IT **9003-99-0, Peroxidase**

(fluorogenic compd. reaction with peroxide in presence of; fluorinated resorufin compds. and their use in assays)

IT **9003-99-0D, Peroxidase**, conjugates with carrier

39391-18-9, Cyclooxygenase

(fluorogenic compd. reaction with peroxide in presence of; fluorinated resorufin compds. and their use in assays)

## IT 7722-84-1, Hydrogen peroxide, analysis

(fluorogenic compd. reaction with, in presence of **peroxidase**; fluorinated resorufin compds. and their use in assays)

## IT 14915-07-2, Peroxide

(fluorogenic compd. reaction with, in presence of **peroxidase**; fluorinated resorufin compds. and their use in assays)

IT **851128-96-6P**

(use in detg. cytotoxicity of test compds.; fluorinated resorufin compds. and their use in assays)

monoheteroyldiarylmethane direct dye or its leuco precursor.  
Guerin, Frederic; Lagrange, Alain (L'oreal, Fr.). Fr. Demande FR 2849373 A1 20040702, 74 pp. (French). CODEN: FRXXBL. APPLICATION: FR 2002-16851 20021230.

AB Hair dyeing compns. comprise a direct monoheteroyldiarylmethane dye and its leuco precursors. Thus, a formulation contained N-[4-[[4-(diethylamino)phenyl](4-oxo-4H-1-benzopyran-3-yl)methylene]-2,5-cyclohexadien-1-ylidene]-N-ethylethanaminium perchlorate 0.553, oleic diethanolamide 3, lauric acid 1, ethylene glycol monoethyl ether 5, hydroxyethyl **cellulose** 2, 2-amino-2-methyl-1-propanol 9.5, and water qs to 100 g. **chloride** 0.56, benzyl alc. 4.0, PEG 6.0, hydroxyethyl **cellulose** 0.7, alkyl polyglucoside 4.5, phosphate buffer 7, and water qs to 100 g.

IT **9003-99-0, Peroxidase 81769-84-8**

**81769-89-3 81769-90-6 81790-04-7**

(hair dyeing compns. contg. monoheteroyldiarylmethane direct dye or its leuco precursor)

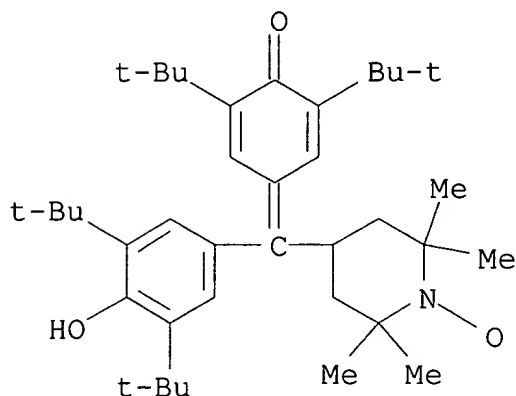
RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

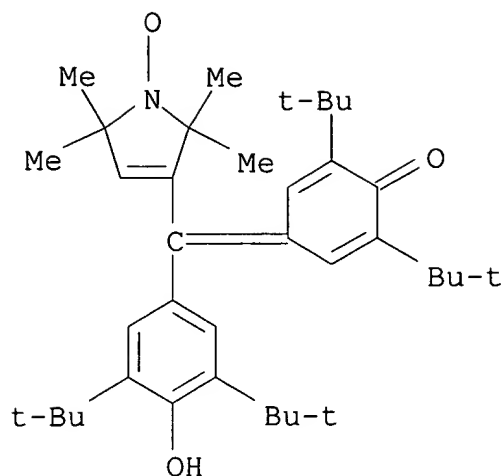
RN 81769-84-8 HCA

CN 1-Piperidinyloxy, 4-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl][3,5-bis(1,1-dimethylethyl)-4-oxo-2,5-cyclohexadien-1-ylidene]methyl]-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



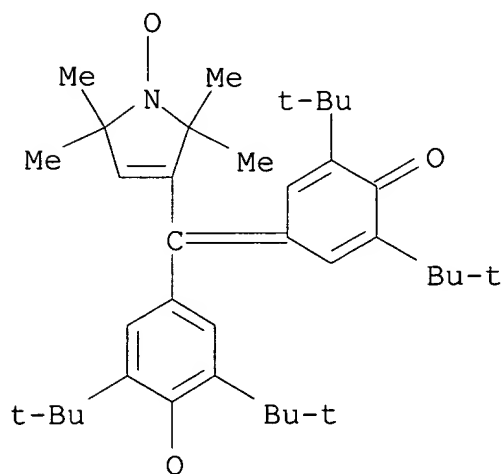
RN 81769-89-3 HCA

CN 1H-Pyrrol-1-yloxy, 3-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl][3,5-bis(1,1-dimethylethyl)-4-oxo-2,5-cyclohexadien-1-ylidene]methyl]-2,5-dihydro-2,2,5,5-tetramethyl- (9CI) (CA INDEX NAME)



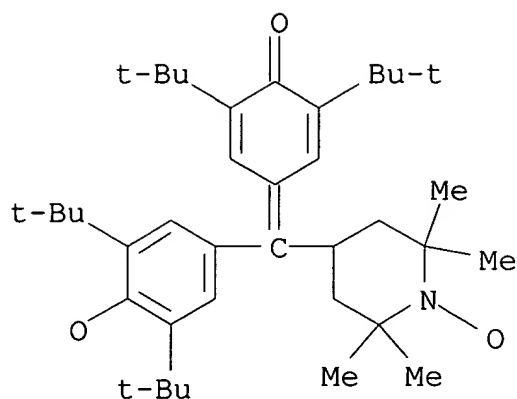
RN 81769-90-6 HCA

CN 1H-Pyrrol-1-yloxy, 3-[[3,5-bis(1,1-dimethylethyl)-4-oxo-2,5-cyclohexadien-1-ylidene][3,5-bis(1,1-dimethylethyl)-4-oxyphenyl]methyl]-2,5-dihydro-2,2,5,5-tetramethyl- (9CI) (CA INDEX NAME)



RN 81790-04-7 HCA

CN 1-Piperidinyloxy, 4-[[3,5-bis(1,1-dimethylethyl)-4-oxo-2,5-cyclohexadien-1-ylidene][3,5-bis(1,1-dimethylethyl)-4-oxyphenyl]methyl]-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM A61K007-13  
 CC 62-3 (Essential Oils and Cosmetics)  
 IT 95-55-6D, o-Aminophenol, derivs. 95-70-5, p-Toluenediamine  
 106-50-3, p-Phenylenediamine, biological studies 106-50-3D,  
 p-Phenylenediamine, derivs. 108-45-2D, m-Phenylenediamine, derivs.  
 108-46-3D, Resorcinol, derivs. 123-30-8, p-Aminophenol  
 123-30-8D, p-Aminophenol, derivs. 124-43-6 591-27-5D,  
 m-Aminophenol, derivs. 2835-95-2, 5-Amino-2-methylphenol  
 3486-48-4 3737-88-0 3737-89-1 3737-91-5 3810-38-6  
 6411-50-3 6735-60-0 6837-66-7 7722-84-1, Hydrogen peroxide,  
 biological studies **9003-99-0, Peroxidase**  
 9035-73-8, Oxidase 9037-29-0, Oxygenase 10231-59-1 13158-70-8  
 13158-71-9 13158-72-0 13158-73-1 15081-86-4 15082-04-9  
 17329-99-6 17330-00-6 17330-03-9 17330-04-0 18198-28-2  
 18198-29-3 18198-30-6 18198-31-7 22179-00-6 22179-01-7  
 22196-95-8 23266-29-7 23266-30-0 23266-31-1 23266-32-2  
 23266-33-3 23266-34-4 23266-35-5 23266-36-6 23297-28-1  
 23335-34-4 23642-27-5 25361-34-6 26345-38-0 32982-64-2  
 33609-83-5 34762-92-0 36525-76-5 37111-44-7 38213-80-8  
 38557-41-4 38557-42-5 38557-43-6 38557-44-7 38557-45-8  
 40683-08-7 40683-09-8 40683-10-1 40683-11-2 40683-12-3  
 40739-75-1 41573-35-7 42297-76-7 42297-77-8 42297-78-9  
 42297-79-0 42297-80-3 42297-81-4 42297-82-5 42297-83-6  
 42443-53-8 47334-92-9 47334-93-0 47334-95-2 47433-65-8  
 47433-66-9 47569-88-0 47571-92-6 47615-09-8 47645-26-1  
 47646-24-2 47699-20-7 47699-21-8 47700-01-6 47701-02-0  
 47725-05-3 47742-10-9 47742-82-5 47789-57-1 47791-05-9  
 47816-91-1 48230-04-2 48237-01-0 49716-03-2 50548-08-8  
 50584-48-0 50904-51-3 50904-52-4 50904-53-5 50904-54-6  
 51107-46-1 51107-47-2 54111-86-3 54117-49-6 54117-50-9  
 54117-51-0 54117-52-1 54117-53-2 54117-54-3 55302-96-0,  
 5-N-(.beta.-Hydroxyethyl)amino-2-methyl phenol 56413-28-6  
 56413-29-7 56413-30-0 56413-31-1 56413-32-2 56413-33-3

56413-34-4	56413-35-5	56413-36-6	56413-37-7	56413-38-8
56413-39-9	56523-96-7	56523-97-8	56523-98-9	56524-08-4
56524-09-5	56524-10-8	56524-11-9	57693-25-1	57693-26-2
57877-71-1	61578-24-3	61578-25-4	61578-26-5	61937-91-5
61938-02-1	61938-03-2	72828-90-1	74386-17-7	74567-64-9
79377-85-8	79377-91-6	79377-92-7	79377-98-3	79395-66-7
79395-69-0	80498-15-3, Laccase <b>81769-84-8</b>			
<b>81769-89-3 81769-90-6 81790-04-7</b>				
83968-90-5	83968-91-6	83968-92-7	84113-63-3	85187-85-5
94275-71-5	94276-90-1	94885-67-3	94885-68-4	94885-69-5
94885-70-8	94885-71-9	94885-72-0	94885-73-1	94885-74-2
94885-75-3	94885-76-4	94885-77-5	94885-78-6	94885-79-7
96597-44-3	96597-45-4	96597-49-8	96622-84-3	97628-71-2
97628-72-3	97628-73-4	104038-58-6	104488-58-6	104488-59-7
104511-49-1	107278-33-1	107278-34-2	107385-48-8	107464-77-7
107464-79-9	107464-81-3	108403-61-8	108403-62-9	108403-63-0
108403-64-1	108403-65-2	108403-66-3	112988-80-4	116915-58-3
117881-66-0	117881-93-3	118727-49-4	118727-54-1	119482-85-8
119570-73-9	119570-76-2	122235-19-2	122235-20-5	124360-14-1
124360-15-2	146091-29-4	156470-28-9	181423-83-6	181423-86-9
181423-88-1	181423-91-6	181423-94-9	181423-97-2	181424-03-3
181424-11-3	181424-16-8	181424-17-9	181424-22-6	181424-28-2
181424-29-3	181424-34-0	181424-39-5	181424-43-1	181424-48-6
181424-52-2	181424-56-6	181424-60-2		

(hair dyeing compns. contg. monoheteroyldiarylmethane direct dye or its leuco precursor)

L49 ANSWER 3 OF 4 HCA COPYRIGHT 2006 ACS on STN

140:289230 Fabric care compositions containing UV protectant, dye sequestrant, fabric softener etc. Adair, Matha J.; Finn, Leslie S.; Petrin, Michael J.; Rodriguez, Cheryl H.; Shanks, Philip C.; Van Buskirk, Gregory; De Leo, Malcolm A.; Selbach, Hanneliese S.; Ochomogo, Maria G. (USA). U.S. Pat. Appl. Publ. US 2004063597 A1 20040401, 30 pp. (English). CODEN: USXXCO. APPLICATION: US 2002-259179 20020927.

AB A non-liq., liq., liq.-gel or gelled fabric care compn. comprises one or more fabric care enzymes effective for aiding in preventing pilling fuzzing, staining and other deterioration of fabric fibers during the wash process. The fabric care compn. also comprises one or more UV protectants for brightening and preventing light caused photo fading or other damage to fabrics. The fabric care compn. comprises one or more surface active dispersing, emulsifying and/or solubilizing agent principally comprised of surfactants, co-surfactants, hydrotropes and solvents selected to solubilize or stabilize the compn. The fabric care compn. also comprises one or more dye-transfer inhibitors, anti-redeposition agents or dye sequestrants to prevent re-deposition of dyes which have become transient from other fabrics. The fabric care compn. comprises one

or more dye, pigment and fabric color fixative or finish protectant to lock-in dyes and pigments to prevent their loss in quantity or quality during soaking or washing. The fabric care compn. optionally comprises one or more textile lubricant and/or textile softening agent to coat the textiles and reduce inter-fiber and fiber surface friction. The fabric care compn. also comprises one or more hardness and metal ion sequestrants and crystal growth inhibitors to bind free ions to prevent formation of insol. ppt. compds. The fabric care compn. also comprises one or more chlorine and/or active oxygen scavengers or neutralizers which act to neutralize oxidizing agents, i.e., those species with oxidn. potential. The fabric care compn. optionally comprises one or more from the following: handling, storage, processing agents to modify elastic and viscous phase properties, anti-foaming or frothing agents, anti-microbial, anti-bacterial or anti-fungal agents, pH buffer, adjustment and/or modification, as needed, aesthetic dyes and/or fragrances.

IT **9005-25-8, Starch**, uses  
(cationic, dye-transfer inhibitor; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)

RN 9005-25-8 HCA

CN Starch (8CI, 9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT **9003-99-0, Peroxidase**  
(dye-transfer inhibitor; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)

RN 9003-99-0 HCA

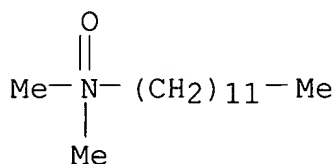
CN Peroxidase (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT **1643-20-5, Lauryl amine oxide**  
(nonionic surfactant; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)

RN 1643-20-5 HCA

CN 1-Dodecanamine, N,N-dimethyl-, N-oxide (9CI) (CA INDEX NAME)



IC ICM C12S009-00

INCL 510276000; 510392000

CC 46-5 (Surface Active Agents and Detergents)

IT Quaternary ammonium compounds, uses  
((2-hydroxypropyl)methylditalow alkyl, **chlorides**,  
cationic fabric softener; fabric care compns. contg. UV

- protectant, dye sequestrant, fabric softener etc)
- IT **Oligosaccharides**, uses  
(deriv., optionally alkoxyated, nonionic surfactant; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)
- IT Quaternary ammonium compounds, uses  
(dimethylditolallow alkyl, **chlorides**, cationic fabric softener; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)
- IT 107-64-2, Distearyl dimethylammonium **chloride** 7212-69-3, Dioleoyl dimethylammonium **chloride** 92888-37-4, Methyl bis(oleylamidoethyl)2-hydroxyethyl ammonium methyl sulfate 676162-67-7, Dimyristyl diethyl ammonium **bromide**  
(cationic fabric softener; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)
- IT **9005-25-8, Starch**, uses  
(cationic, dye-transfer inhibitor; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)
- IT 9000-30-0, Guar gum 9002-89-5, Polyvinyl alcohol 9002-98-6  
9003-39-8D, Polyvinyl pyrrolidone, optionally deriv.  
**9003-99-0, Peroxidase** 9004-32-4, Carboxymethyl **cellulose** 9004-42-6, Carboxyethyl **cellulose** 9004-67-5, Methyl **cellulose** 9005-32-7, Alginic acid 9035-73-8, Oxidase 9045-81-2, Polyvinylpyridine-N-oxide 12619-70-4, Cyclodextrins 25232-42-2, Polyvinyl imidazole 25608-40-6, Polyaspartic acid 26062-48-6, Polyhistidine 26063-13-8, Polyaspartic acid 26854-81-9, Polyhistidine 106392-12-5, Ethylene oxide-propylene oxide block copolymer 182482-80-0, Polyvinyl oxazolidone  
(dye-transfer inhibitor; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)
- IT 108-95-2D, Phenol, deriv., alkoxyated **1643-20-5**, Lauryl amine oxide 13840-40-9, Phosphine oxide 26912-60-7  
(nonionic surfactant; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)
- IT 71-00-1, Histidine, uses 74-79-3, Arginine, uses 77-86-1, Tris(hydroxymethyl)aminomethane 100-97-0, uses 111-42-2, Diethanolamine, uses 141-43-5, Monoethanolamine, uses 7772-98-7, Sodium thiosulfate 9003-05-8 12125-02-9, Ammonium **chloride**, uses 24937-47-1, Polyarginine 25013-16-5, Butylated hydroxyanisole 25104-18-1, Polylysine 25212-18-4, Polyarginine 26336-38-9, Vinylamine homopolymer 38000-06-5, Polylysine  
(scavenger; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)

vivo. Cevc, Gregor (Idea Innovative Dermale Applikationen G.m.b.H., Germany). PCT Int. Appl. WO 2000038653 A1 20000706, 73 pp.

DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG.

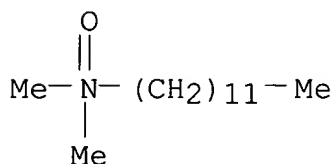
(English). CODEN: PIXXD2. APPLICATION: WO 1998-EP8421 19981223.

AB A formulation comprises mol. arrangements capable of penetrating pores in a barrier, owing to penetrant adaptability, despite the fact that the av. diam. of the pores is smaller than the av. penetrant diam., provided that the penetrants can transport agents or cause permeation through the pores after penetrants have entered pores. The formulation comprises at least 1 consistency builder in an amt. that increases the formulation to maximally 5 Nm/s so that spreading over is enabled. The formulation also contains 1 antioxidant in an amt. that reduces the increase of oxidn. index to <100% per 6 mo and/or at least 1 microbicide in an amt. that reduces the bacterial count of 1 million germs added/g of total mass of the formulation to <100 in the case of aerobic bacteria, to <10 in the case of entero-bacteria, and to <1 in the case of Pseudomonas aeruginosa or Staphylococcus aureus, after a period of 4 days. Thus, a compn. contained soybean phosphatidylcholine 347, Tween-80 623, sodium dodecyl sulfate 30, benzyl alc. 50, clobetasol 17-propionate 25 and pH 6.5 50 mM phosphate buffer 9000 mg.

IT **1643-20-5**, Dodecyldimethylamine oxide **9004-34-6D**, **Cellulose**, derivs., biological studies  
(penetrating formulation for topical non-invasive application in vivo)

RN 1643-20-5 HCA

CN 1-Dodecanamine, N,N-dimethyl-, N-oxide (9CI) (CA INDEX NAME)



RN 9004-34-6 HCA

CN Cellulose (8CI, 9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IC ICM A61K009-127

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

IT Quaternary ammonium compounds, biological studies



(alkylbenzyldimethyl, **bromides**; penetrating formulation for topical non-invasive application in vivo)

IT Quaternary ammonium compounds, biological studies (alkylbenzyldimethyl, **chlorides**; penetrating formulation for topical non-invasive application in vivo)

IT Quaternary ammonium compounds, biological studies (**bromides**; penetrating formulation for topical non-invasive application in vivo)

IT Quaternary ammonium compounds, biological studies (**chlorides**; penetrating formulation for topical non-invasive application in vivo)

IT 50-06-6, Phenobarbital, biological studies 50-33-9, Phenylbutazone, biological studies 50-78-2, Acetylsalicylic acid 50-81-7, Ascorbic Acid, biological studies 50-99-7, Glucose, biological studies 52-67-5, Penicillamine 53-86-1, Indomethacin 54-05-7, Chloroquine 54-64-8, Thiomersal 55-56-1, Chlorhexidine 55-68-5, Phenylmercuric nitrate 56-81-5, Glycerol, biological studies 57-15-8, Chlorbutanol 59-02-9, .alpha.-Tocopherol 59-05-2, Methotrexate 59-50-7, 4-Chloro-m-cresol 60-00-4, EDTA, biological studies 61-68-7, Mefenamic acid 62-38-4, Phenylmercuric acetate 62-56-6, Thiourea, biological studies 64-17-5, Ethyl alcohol, biological studies 65-85-0, Benzoic acid, biological studies 67-63-0, Isopropyl alcohol, biological studies 67-68-5D, DMSO, alkyl derivs. 69-72-7, Salicylic Acid, biological studies 69-93-2, Uric acid, biological studies 70-18-8, Glutathione, biological studies 70-30-4, Hexachlorophene 81-24-3D, salts 81-25-4D, salts 83-44-3D, salts 83-89-6, Quinacrine 86-74-8, Carbazole 89-65-6 90-05-1, Guaiacol 90-34-6, Primaquine 94-13-3, Propylparaben 94-18-8, Benzylparaben 94-26-8, Butylparaben 97-23-4, Dichlorophene 99-50-3, Protocatechuic Acid 99-76-3, Methylparaben 100-51-6, Benzyl alcohol, biological studies 102-98-7, Phenylmercuric borate 103-90-2, Acetaminophen 107-15-3D, Ethylenediamine, derivs. 107-21-1, Ethylene glycol, biological studies 110-27-0, Isopropyl myristate 110-44-1, Sorbic acid 112-53-8, 1-Dodecanol 112-80-1, Oleic acid, biological studies 118-42-3, Hydroxychloroquine 119-13-1, .delta.-Tocopherol 120-47-8, Ethylparaben 121-33-5, Vanillin 121-79-9, Propyl Gallate 122-39-4, Diphenylamine, biological studies 123-03-5, Cetylpyridinium **chloride** 123-31-9, Hydroquinone, biological studies 128-37-0, BHT, biological studies 129-20-4, Oxyphenbutazone 137-66-6 138-14-7, Desferal 141-78-6, EtOAc, biological studies 143-19-1, Sodium oleate 143-28-2, Oleyl alcohol 148-03-8, .beta.-Tocopherol 149-91-7, Gallic Acid, biological studies 151-41-7, Lauryl sulfate 302-95-4, Sodium deoxycholate 327-97-9, Chlorogenic acid 331-39-5, Caffeic acid 360-65-6D, salts 446-86-6, Azathioprine 475-31-0D, salts 476-66-4, Ellagic Acid 484-78-6, 3-Hydroxykynurenine 490-79-9,

Gentisic acid 500-38-9, Nordihydroguaiaretic Acid 516-50-7D,  
 salts 525-66-6, Propranolol 530-57-4, Syringic Acid 530-59-6,  
 Sinapic acid 530-78-9, Flufenamic acid 534-61-2, IsoChlorogenic  
 acid 538-71-6, Phenododecinium **bromide** 548-93-6,  
 3-Hydroxyanthranilic acid 616-91-1, N-Acetylcysteine 621-82-9,  
 Cinnamic acid, biological studies 629-25-4, Sodium laurate  
 635-65-4, Bilirubin, biological studies 822-17-3, Sodium linoleate  
 1118-68-9D, Dimethylglycine, alkyl derivs. 1135-24-6, Ferulic acid  
 1319-77-3, Cresol **1643-20-5**, Dodecyldimethylamine oxide  
 1948-33-0, tert-Butylhydroquinone 1951-25-3, Amiodarone  
 2002-22-4D, derivs. 2495-84-3 3650-09-7, Carnosic acid  
 4353-06-4 5432-30-4 5677-55-4, Ubiquinol-10 5957-80-2,  
 Carnosol 7235-40-7, .beta.-Carotene 7347-25-3, Sodium taurate  
 7616-22-0, .gamma.-Tocopherol 7631-90-5, Sodium bisulphite  
 7681-57-4, Sodium metabisulfite 7747-53-7 9000-07-1, Carrageenan  
 9000-30-0, Guar-gum 9000-65-1, Tragacanth 9000-69-5, Pectin  
 9001-05-2, Catalase 9002-88-4, Polyethylene 9002-89-5, Polyvinyl  
 alcohol 9002-92-0, Polyethylene glycol dodecyl ether 9002-96-4  
 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Carboxymethyl  
**cellulose** sodium salt **9004-34-6D**,  
**Cellulose**, derivs., biological studies 9004-61-9,  
 Hyaluronic Acid 9004-62-0, Hydroxyethyl **cellulose**  
 9004-64-2, Hydroxypropyl **cellulose** 9004-65-3,  
 Hydroxypropylmethyl **cellulose** 9004-67-5, Methyl  
**cellulose** 9004-98-2, Polyethylene glycol oleyl ether  
 9004-99-3, Myrj 45 9005-32-7, Alginic acid 9005-64-5, Tween 20  
 9005-65-6, Tween 80 9012-36-6, Agarose 9012-76-4, Chitosan  
 9013-66-5, Glutathione **peroxidase** 9036-19-5,  
 Polyethylene glycol octylphenyl ether 9043-30-5, Polyethylene  
 glycol isotridecyl ether 9054-89-1, Superoxide dismutase  
 9086-85-5, Poly(hydroxypropyl) methacrylate 10540-29-1, Tamoxifen  
 11138-66-2, Xanthan 12041-76-8, Dichlorobenzylalcohol  
 15307-86-5, Diclofenac 15687-27-1, Ibuprofen 16409-34-0, Sodium  
 glycodeoxycholate 16690-40-7 18175-45-6, Sodium elaidate  
 18472-51-0, Chlorhexidine gluconate 18683-91-5, Ambroxol  
 19767-45-4, Mesna 20283-92-5, Rosmarinic acid 20902-45-8,  
 Penicillamine disulfide 21829-25-4, Nifedipine 22071-15-4,  
 Ketoprofen 22204-53-1, Naproxen 22494-42-4, Diflunisal  
 23288-49-5, Probuco1 25013-16-5, BHA 25014-41-9,  
 Polyacrylonitrile 25249-16-5 25322-68-3, PEG 25429-38-3,  
 Coumaric acid 25655-41-8, Povidone-iodine 26570-48-9,  
 Polyethylene glycol-diacrylate 26746-38-3, Di-tert-butylphenol  
 27306-76-9, Polyethylene glycol cetyl stearyl ether 27306-79-2,  
 Polyethylene glycol myristyl ether 29122-68-7, Atenolol  
 29349-22-2, Chlorobenzyl alcohol 33425-76-2 36322-90-4,  
 Piroxicam 36413-60-2, Quinic Acid 37640-71-4, Aprindine  
 53188-07-1, Trolox 53584-19-3 55985-32-5, Nicardipine  
 59227-89-3, Azone 63675-72-9, Nisoldipine 66085-59-4, Nimodipine

68047-06-3, Hydroxytamoxifen 68555-46-4 75530-68-6, Nilvadipine  
77400-65-8, Asocainol 85261-20-7, Decanoyl N-methylglucamide  
87246-72-8 88306-53-0 90522-12-6 91729-95-2, Rosmaridiphenol  
99716-88-8, Methallylsulfonic acid homopolymer 106392-12-5,  
Poloxamer 110101-67-2, U74006F 118457-14-0, Nebivolol  
121869-32-7 148081-72-5, 1-O-Hexyl-2,3,5-trimethylhydroquinone  
(penetrating formulation for topical non-invasive application in  
vivo)